FHU-0803TXD
8 Port 10/100Mbps
Dual Speed Ethernet Hub
with Bridge

This quick start guide contains the information necessary to install and operate the FHU-0803TXD *8 port 10BASE-T/100BASE-TX dual speed Ethernet Hub.*

Introduction

The FHU-0803TXD provides 8 RJ-45 ports for both 10 Mbps or 100 Mbps Ethernet connections, which are detected by auto-sensing. The dual-speed hub contains two internal repeater buses, one for 10 Mbps traffic and another for 100 Mbps traffic. Traffic passing between attached devices that operate at the same speed is confined within the appropriate repeater bus.

In the FHU-0803TXD, an internal Ethernet switch consisting of a 10 Mbps and a 100 Mbps switching port, is used to link the repeater buses. Only if traffic has to be passed between a 10 Mbps and a 100 Mbps device, the data will be forwarded to the other internal repeater bus if the destination address is not found in the address table, or broadcast traffic is sent.

The dual-speed hub provides an ideal bridge between 10M and 100 Mbps Ethernet networks. Moreover, the smart design built into the display panel provides a friendly interface that simplifies installation and network troubleshooting.

Package Contents

Your package includes the following:

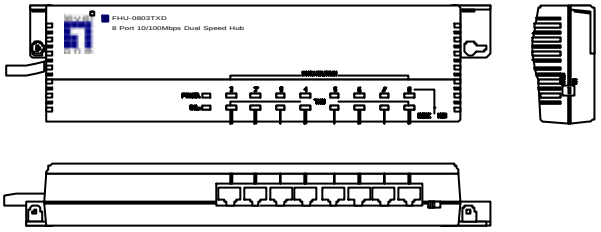
- FHU-0803TXD
- User's Manual

Hardware Description

The FHU-0803TXD hubs provide 8 10/100 Mbps dual-speed ports. Each of these ports automatically senses the speed of the attached device, and channels the data to the appropriate backplane, which is the 10 or 100 Mbps repeater bus.

The FHU-0803TXD contains a 2-port switch to connect these two repeater buses. The learning function of the internal switch of FHU-0803TXD stores the node address and the corresponding repeater bus of each incoming packet in a routing table. This information is subsequently used to confine traffic exchanged between legacy Ethernet devices within the slower repeater bus, leaving the other bus free to handle Fast Ethernet traffic. By confining traffic to its respective collision domain, the overall load on the network is significantly reduced.

The figures below show the components of FHU-0803TXD.



LED Indicators

This hub provides LED indicators for monitoring various network conditions. A glance on the top panel will allow you to instantly monitor the status of each station port plus the overall condition affecting the hub.

LED	Color	Indication
Power (POWER)	Green	ON: Unit is receiving power OFF: Power is disconnected, no power received
Collision (COL)	Orange	ON: Collision happens. OFF: No collision
Port Link/Partition (LINK/PARTITION)	Green/ Red	Green: Indicates a valid link has been established on this port

		Red: Indicates port has been partitioned due to an abnormal network condition, or due to too many collisions on the port OFF: No valid link has been established on this port
Port 10/100Mbps (10/100Mbps)	Green	ON: Port is in 100 Mbps connection OFF: Port is in 10 Mbps connection

Switch Position

There is a switch MDI-X/MDI on the front side. Make sure the switch is in the correct position.

Switch	Position	Indication
MDI-X/ MDI	left (MDI-X)	The port 8 acts as normal station port
	right (MDI)	The port 8 acts as Daisy-chain port

One more switch on the left side for GDH08BM

10/100M vs.10M	up (10/100M)	The port 8 acts as normal port

	down (10M)	The port 8 acts as 10 Mbps port

Hardware Installation

The hub can be placed directly on your desktop or wall-mounted. Before you start installing the hub, make sure you can provide the right operating environment, including power requirements, sufficient physical space, and proximity to other network devices that are to be connected. Verify the following installation requirements:

- Power requirements: 100-120 VAC (±10%) at 50 to 60 Hz (± 3Hz) or 220-240 VAC (±10%) at 50 to 60 Hz (±3Hz).
- The hub should be located in a cool dry place, with at least 10 cm. (4 in.) of space at the front and back for ventilation.
- Place the hub out of direct sunlight, and away from heat sources or areas with a high amount of electromagnetic interference.

The hub has 8 RJ-45 station ports, one of which also serves as an MDI daisy-chain port.

1. Select an appropriate location.
2. Connect your workstation to any available RJ-45 port on the hub using an unshielded or shielded twisted-pair cable. Make sure the switch MDI-X/MDI to the left position

Do not plug a phone jack connector into any RJ-45 port. This may damage the hub. Use only twisted-pair cables with RJ-45 connectors that conform with FCC standards.

Notes: 1. Make sure each twisted-pair cable does not exceed 100 meters (328 feet).

2. The Category 5 cables are used for all Fast Ethernet connections. We advise using Category 5 cable for dual-speed hub to avoid any confusion or inconvenience in the future when you upgrade attached devices to Fast Ethernet.

3. When a hub is to be connected to another switch in a daisy-chain configuration, set the port 8 as daisy-chain port (Switch MDI-X/MDI to right position). Use normal RJ45 cable. Plug one end of the cable into port 8 of the hub and plug the other end of the cable into any port of the other switch.

   Note: When switch MDI-X/MDI set to MDI, the port 8 of the unit cannot be used as a station port.

4. When external switch device is adopted to interconnect other segments, the switch on the left side panel of FHU-0803TXD can set the port 8 as 10Mbps port in case both interconnected ports are auto-negotiated.
5. Plug the power cord into the corresponding socket. Then connect it to an electrical outlet to power on the hub.

Troubleshooting

The hub can be easily monitored through panel indicators to assist the network manager in identifying problems. This section describes common problems you may encounter and possible

solutions.

Symptom: Power indicator does not light up (green) after power on.

Cause: Defective power outlet, power cord, or internal power supply.

Solution: Check the power outlet by plugging in another device that is functioning properly. Check the power cord with another device. If these measures fail to resolve the problem, call for dealer assistance.

Symptom: Link indicator does not light up after making a connection.

Cause: Network interface, network cable, or hub port is defective.

Solution: Verify that the hub and attached device are powered on. Be sure the cable is plugged into both the hub and corresponding device. Verify that the proper cable type is used and its length does not exceed specified limits. Check the adapter on the attached device and cable connections for possible defects. Replace the defective adapter or cable if necessary.

Network Specification

Hub-to-workstation connection	: 100 meters maximum cable length for unshielded twisted-pair (UTP) category 5 cable or

STP cable.

Number of hubs chained : 2 max for 100BASE-TX.
Number of hubs chained : 4 max for 10BASE-T

Specifications

Base Criteria

Transmission Technique : Base band
Topology : Tree
Access Method : CSMA/CD, 100Mbps
Standards Conformance : IEEE 802.3u 100BASE-TX
IEEE802.3 10BASE-T
Media Supported : Unshielded twisted-pair, shielded twisted-pair
Interfaces : 8 RJ-45 station ports, 1 RJ-45 daisy-chain (MDI) port
Hub-to-Workstation Distance : 100 meters maximum using category 5 UTP or STP cable
Indicator Panel : LEDs for Power(G), Collision(O), and per-port Link(G)/Partition(R) More 100M(G).

Power Consumption : 15 Watts max.
Dimensions : 254mm W x 67mm D x 33mm H
Power System : 100-120 VAC, or 220-240 VAC
Temperature : 0? to 40? (Standard Operating)
Humidity : 10% to 90% (Non-condensing)
Certification : FCC Class A, VCCI Class A,

	CISPR 22 Class A
Safety	: CSA/NRTL, TÜV/GS

Switching Criteria

Network Bridging Function	: filtering, forwarding and learning
Switching Method	: store-and-forward
Address Table	: 1K entries
Queue Buffer	: 120KB Buffer per port
Filtering/Forwarding Rate	: line speed